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(54) Title: PROTEIN WITH ACTIVITY OF HYDROLYZING DEXTRAN, STARCH, MUTAN, INULIN AND LEVAN, GENE ENCODING THE SAME, CELL EXPRESSING THE SAME, AND PRODUCTION METHOD THEREOF

(57) Abstract: Disclosed is an enzyme, having the amino acid sequence of SEQ. ID. No. 1 with the activity of hydrolyzing dex-
tran, starch, mutan, inulin and levan, a gene encoding the enzyme, and a transformed cell expressing the gene. Also disclosed is
a method of producing an enzyme capable of degrading dextran, starch, mutan, inulin and levan, which comprises culturing the
cell, expressing the enzyme in the cell and purifying the enzyme. A composition comprising the enzyme is provided for removing
dextran or polysaccharide contaminants during sugar production. With such degradation activity, the enzyme not only finds various
applications in the dental care industry, including anti-plaque compositions and mouthwashes, but is also useful in removing dextran
or polysaccharide contaminants during sugar production.

WO 2005/073368 A1